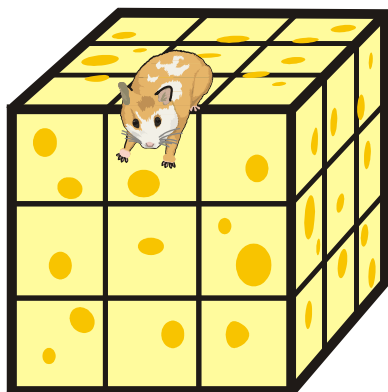# Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández.   **February 28-March 7**

A $3 \times 3 \times 3$ cube of cheese is divided into twenty seven $1 \times 1 \times 1$ small cubes. A hamster eats one small cube every day and an *adjacent* small cube (sharing a face) the next day. Can the hamster eat the *center* small cube on the last day? Explain your answer.

Deadline: March 7, 2005 before 9:00 PM.

Look for the "Problem of the Week" every Monday in the Daily Sundial (Daily Spotlight section) or in our web site **www.csun.edu/math/probweek**

Rules:

1. Open to all enrolled undergraduate and graduate CSUN students.
2. The first complete and correct solution will be awarded a diploma and the choice of a "Brain Benders" wood puzzles set or a five dollar prize.
3. The winner solution and the names of the authors of all correct solutions will be published in our web site (**www.csun.edu/math/probweek**). All authors whose solutions are complete and correct will receive certificates.
4. All solutions must be typed and sent electronically. PDF, Latex, or Word files are preferred.
5. All steps of the solution must be clearly justified.
6. Email your solution with subject "Problem of the week" to

   Bernardo.Abrego@csun.edu

7. Late solutions will not be considered.
8. For any questions contact the organizers

   Bernardo.Abrego@csun.edu, Silvia.Fernandez@csun.edu